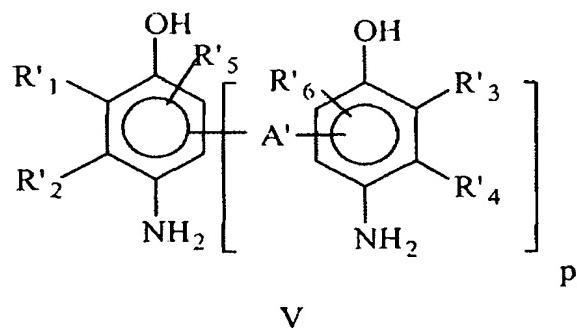


WHAT IS CLAIMED IS:

1. A dyeing composition for dyeing keratinous fibres, in particular human keratinous fibres such as hair, comprising, in an appropriate dyeing medium, at least one cationic tertiary para-phenylenediamine containing a pyrrolidine ring, and at least one para-aminophenol of general formula (V)



in which p is an integer from 0 to 1,

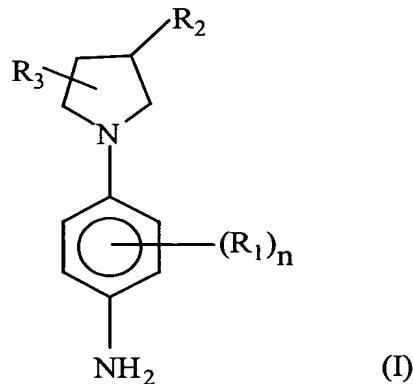
when p = 0, then R'1 denotes a chlorine atom, R'2 denotes a hydrogen atom and R'5 denotes a hydrogen or chlorine atom at the ortho position with respect to the OH group,

when p = 1, then

R'1 to R'6, independently of each other, denote a radical chosen from a hydrogen atom; a C₁-C₄ alkyl; a C₁-C₄ alkoxy; a C₁-C₄ monohydroxyalkyl; a C₃-C₄ dihydroxyalkyl; an allyl; a halogen; a radical of formula C_aH_{2a}OC_bH_{2b+1} with blocks a and blocks b, independent of each other, denoting 1, 2 or 3; or a radical of formula CH=CH-COOZ' with Z' denoting a hydrogen atom or a cosmetically acceptable cation,

A' denotes a radical chosen from -(CH₂)_x- with x denoting 1, 2, 3 or 4; -(CH₂)_c(CH₃)_c with c denoting 1, 2, 3 or 4; -O-(CH₂)_y-O- with y denoting 1, 2, 3 or 4; -O-(C_nH_{2n-z}(OH)_z)-O- n denoting an integer equal to 1 or 2 and z denoting 1, or n denoting an integer ranging from 3 to 10 and z denoting 1 or 2; -O-(C₂H₄-O)_u- with u denoting 1, 2, 3 or 4; -O-(C₃H₆-O)_v- with v denoting 1, 2, 3 or 4; -CH₂XCH₂- with X denoting O, S, SO or SO₂.

2. The composition of claim 1, in which the cationic tertiary para-phenylenediamine corresponds to formula I:



in which

n varies from 0 to 4, it being understood that when n is greater than or equal to 2, then the radicals R₁ may be identical or different,

R₁ represents a halogen atom; a saturated or unsaturated, aliphatic or alicyclic, C₁-C₆ hydrocarbon chain, it being possible for the chain to be interrupted by one or more oxygen, nitrogen, silicon or sulphur atoms or an SO₂ group, and it being possible for the chain to be substituted with one or more hydroxyl or amino radicals; an onium radical Z, the radical R₁ not containing a peroxide bond, or diazo, nitro or nitroso radicals,

R₂ represents an onium radical Z or a radical -X-C=NR₈-NR₉R₁₀ in which X represents an oxygen atom or a radical -NR₁₁ and R₈, R₉, R₁₀ and R₁₁ represent a hydrogen atom, a C₁-C₄ alkyl radical or a C₁-C₄ hydroxylalkyl radical,

R₃ represents a hydrogen atom or a hydroxyl radical.

3. The composition of claim 2, in which the cationic tertiary para-phenylenediamine is such that n is equal to 0.

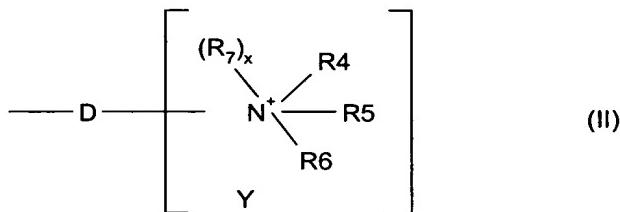
4. The composition of claim 2, in which the cationic tertiary para-phenylenediamine is such that n is equal to 1 and R₁ is chosen from the group consisting of a halogen atom; a saturated or unsaturated, aliphatic or alicyclic, C₁-C₆ hydrocarbon chain; it being possible for one or more carbon atoms to be replaced by an oxygen, nitrogen, silicon or sulphur

atom, or by an SO₂ group, the radical R₁ not containing a peroxide bond, or diazo, nitro or nitroso radicals.

5. The composition of claim 2, in which the cationic tertiary para-phenylenediamine is such that R₁ is chosen from chlorine, bromine, C₁-C₄ alkyl, C₁-C₄ hydroxyalkyl, C₁-C₄ aminoalkyl, C₁-C₄ alkoxy or C₁-C₄ hydroxyalkoxy radicals.

6. The composition of claim 5, in which the cationic tertiary para-phenylenediamine is such that R₁ is chosen from a methyl, hydroxymethyl, 2-hydroxyethyl, 1,2-dihydroxyethyl, methoxy, isopropoxy or 2-hydroxyethoxy radical.

7. The composition of claim 2, in which the cationic tertiary para-phenylenediamine is such that R₂ represents the onium radical Z corresponding to formula (II)



in which

D is a single bond of a linear or branched C₁-C₁₄ alkylene chain which may be interrupted by one or more heteroatoms chosen from oxygen, sulphur or nitrogen, and which may be substituted with one or more hydroxyl, C₁-C₆ alkoxy or amino radicals and which may carry one or more ketone functional groups;

R₄, R₅ and R₆, taken separately, represent a C₁-C₁₅ alkyl radical; a C₁-C₆ monohydroxyalkyl radical; a C₂-C₆ polyhydroxyalkyl radical; a (C₁-C₆)alkoxy(C₁-C₆)alkyl radical; an aryl radical; a benzyl radical; a C₁-C₆ amidoalkyl radical; a tri(C₁-C₆)alkylsilane(C₁-C₆)alkyl radical; a C₁-C₆ aminoalkyl radical; a C₁-C₆ aminoalkyl radical in which the amine is mono- or di-substituted with a C₁-C₄ alkyl, (C₁-C₆)alkylcarbonyl, amido or (C₁-C₆)alkylsulphonyl radical; or

R₄, R₅ and R₆ together, in pairs, form, with the nitrogen atom to which they are attached, a 4-, 5-, 6- or 7-membered saturated carbon ring which may

contain one or more heteroatoms, it being possible for the cationic ring to be substituted with a halogen atom, a hydroxyl radical, a C₁-C₆ alkyl radical, a C₁-C₆ monohydroxyalkyl radical, a C₂-C₆ polyhydroxy-alkyl radical, a C₁-C₆ alkoxy radical, a tri(C₁-C₆)alkylsilane(C₁-C₆)alkyl radical, an amido radical, a carboxyl radical, a (C₁-C₆)alkylcarbonyl radical, a thio (-SH) radical, a C₁-C₆ thioalkyl (-R-SH) radical, a (C₁-C₆)alkylthio radical, an amino radical, an amino radical which is mono- or di-substituted with a (C₁-C₆)alkyl, (C₁-C₆)alkylcarbonyl, amido or (C₁-C₆)alkylsulphonyl radical;

R₇ represents a C₁-C₆ alkyl radical; a C₁-C₆ monohydroxyalkyl radical; a C₂-C₆ polyhydroxyalkyl radical; an aryl radical; a benzyl radical; a C₁-C₆ aminoalkyl radical; a C₁-C₆ aminoalkyl radical whose amine is mono- or di-substituted with a (C₁-C₆)alkyl, (C₁-C₆)alkylcarbonyl, amido or (C₁-C₆)alkylsulphonyl radical; a C₁-C₆ carboxyalkyl radical; a C₁-C₆ carbamyl-alkyl radical; a C₁-C₆ trifluoroalkyl radical; a tri(C₁-C₆)alkylsilane(C₁-C₆)alkyl radical; a C₁-C₆ sulphonamidoalkyl radical; a (C₁-C₆)alkyl-carboxy(C₁-C₆)alkyl radical; a (C₁-C₆)alkylsulphanyl(C₁-C₆)alkyl radical; a (C₁-C₆)alkylsulphonyl(C₁-C₆)alkyl radical; a (C₁-C₆)alkylcarbonyl(C₁-C₆)alkyl radical; an N-(C₁-C₆)alkylcarbamyl(C₁-C₆)alkyl radical; an N-(C₁-C₆)alkylsulphonamido(C₁-C₆)alkyl radical;

x is 0 or 1,

when x = 0, then the linking arm is attached to the nitrogen atom carrying the radicals R₄ to R₆;

when x = 1, then two of the radicals R₄ to R₆ form, together with the nitrogen atom to which they are attached, a 4-, 5-, 6- or 7-membered saturated ring and D is linked to the carbon atom of the saturated ring;

Y is a counter-ion.

8. The composition of claim 7, in which the cationic tertiary para-phenylenediamine is such that R₂ corresponds to formula II in which x is equal to 0 and R₄, R₅ and R₆ separately are preferably chosen from a C₁-C₆ alkyl radical, a C₁-C₄ monohydroxyalkyl

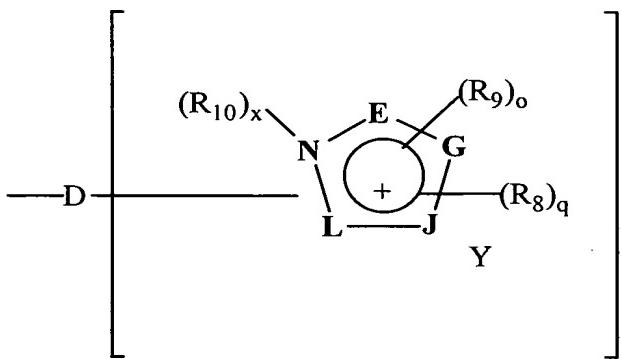
radical, a C₂-C₄ polyhydroxyalkyl radical, a (C₁-C₆)alkoxy(C₁-C₄)alkyl radical, a C₁-C₆ amidoalkyl radical, a tri(C₁-C₆)alkylsilane(C₁-C₆)alkyl radical, or R₄ with R₅ form together an azetidine ring, a pyrrolidine, piperidine, piperazine or morpholine ring, R₆ being chosen in this case from a C₁-C₆ alkyl radical; a C₁-C₆ monohydroxyalkyl radical, a C₂-C₆ polyhydroxyalkyl radical; a C₁-C₆ aminoalkyl radical, an aminoalkyl radical which is mono- or di-substituted with a (C₁-C₆)alkyl radical, a (C₁-C₆)alkylcarbonyl, amido or (C₁-C₆)alkylsulphonyl radical; a C₁-C₆ carbamylalkyl radical; a tri(C₁-C₆)alkylsilane(C₁-C₆)alkyl radical; a (C₁-C₆)alkyl carboxy(C₁-C₆)alkyl radical; a (C₁-C₆)alkylcarbonyl(C₁-C₆)alkyl radical; an N-(C₁-C₆)alkylcarbamyl(C₁-C₆)alkyl radical.

9. The composition of claim 7, in which the cationic tertiary para-phenylenediamine is such that R₂ corresponds to formula II in which x is equal to 1 and R₇ is chosen from a C₁-C₆ alkyl radical; a C₁-C₆ monohydroxyalkyl radical; a C₂-C₆ polyhydroxy-alkyl radical; a C₁-C₆ aminoalkyl radical, a C₁-C₆ aminoalkyl radical whose amine is mono- or di-substited with a (C₁-C₆)alkyl, (C₁-C₆)alkylcarbonyl, amido or a (C₁-C₆)alkylsulphonyl radical; a C₁-C₆ carbamylalkyl radical, a tri(C₁-C₆)alkylsilane(C₁-C₆)alkyl radical; a (C₁-C₆)alkylcarboxy(C₁-C₆)alkyl radical; a (C₁-C₆)alkylcarbonyl(C₁-C₆)alkyl radical; an N-(C₁-C₆)alkylcarbamyl(C₁-C₆)alkyl radical; R₄ with R₅ together form an azetidine, pyrrolidine, piperidine, piperazine or morpholine ring, R₆ being chosen in this case from a C₁-C₆ alkyl radical; a C₁-C₆ monohydroxyalkyl radical; a C₂-C₆ polyhydroxyl alkyl radical; a C₁-C₆ aminoalkyl radical; a C₁-C₆ aminoalkyl radical whose amine is mono- or di-substituted with a (C₁-C₆)alkyl, (C₁-C₆)alkylcarbonyl, amido or (C₁-C₆)alkylsulphonyl radical; a C₁-C₆ carbamylalkyl radical; a tri(C₁-C₆)alkylsilane(C₁-C₆)alkyl radical; a (C₁-C₆)alkylcarboxy(C₁-C₆)alkyl radical; a (C₁-C₆)alkylcarbonyl(C₁-C₆)alkyl radical; an N-(C₁-C₆)alkylcarbamyl(C₁-C₆)alkyl radical.

10. Composition according claim 7, in which the cationic tertiary para-phenylenediamine is such that D is a single bond or an alkylene chain which may be substituted.

11. The composition of claim 2, in which the cationic tertiary para-phenylenediamine is such that R₂ is a trialkylammonium radical.

12. The composition of claim 2, in which the cationic tertiary para-phenylenediamine is such that R₂ represents the onium radical Z corresponding to formula III



(III)

in which

D is a single bond or a linear or branched C₁-C₁₄ alkylene chain which may be interrupted by one or more heteroatoms chosen from oxygen, sulphur or nitrogen, and which may be substituted with one or more hydroxyl, C₁-C₆ alkoxy or amino radicals, and which may carry one or more ketone functional groups;

the vertices E, G, J, L, which are identical or different, represent a carbon, oxygen, sulphur or nitrogen atom to form a pyrrole, pyrazole, imidazole, triazole, oxazole, isooxazole, thiazole, isothiazole ring,

q is an integer between 0 and 4 inclusive;

is an integer between 0 and 3 inclusive;

q+o is an integer between 0 and 4;

the radicals R₈, which are identical or different, represent a halogen atom, a hydroxyl radical, a C₁-C₆ alkyl radical, a C₁-C₆ monohydroxyalkyl radical, a C₂-C₆ polyhydroxyalkyl radical, a C₁-C₆ alkoxy radical, a tri(C₁-C₆)alkylsilane(C₁-C₆)alkyl radical, an amido radical, a carboxyl radical, a C₁-C₆ alkylcarbonyl radical, a thio radical, a C₁-C₆ thioalkyl radical, a (C₁-C₆)alkylthio radical, an amino radical, an amino radical which is mono- or di-substituted with a (C₁-C₆)alkyl, (C₁-C₆)alkylcarbonyl, amido or (C₁-C₆)alkylsulphonyl radical; a C₁-C₆ monohydroxyalkyl radical or a C₂-C₆

polyhydroxyalkyl radical; it being understood that the radicals R₈ are carried by a carbon atom,

the radicals R₉, which are identical or different, represent a C₁-C₆ alkyl radical, a C₁-C₆ monohydroxyalkyl radical, a C₂-C₆ polyhydroxyalkyl radical, a tri(C₁-C₆)alkylsilane(C₁-C₆)alkyl radical, a (C₁-C₆)alkoxy(C₁-C₆)alkyl radical, a C₁-C₆ carbamylalkyl radical, a (C₁-C₆)alkylcarboxy(C₁-C₆)alkyl radical, a benzyl radical; it being understood that the radicals R₉ are carried by a nitrogen,

R₁₀ represents a C₁-C₆ alkyl radical; a C₁-C₆ monohydroxyalkyl radical; a C₂-C₆ polyhydroxyalkyl radical; an aryl radical; a benzyl radical; a C₁-C₆ aminoalkyl radical, a C₁-C₆ aminoalkyl radical whose amine is substituted with a (C₁-C₆)alkyl, (C₁-C₆)alkylcarbonyl, amido or (C₁-C₆)alkylsulphonyl radical; a C₁-C₆ carboxyalkyl radical; a C₁-C₆ carbamylalkyl radical; a C₁-C₆ trifluoroalkyl radical; a tri(C₁-C₆)alkylsilane(C₁-C₆)alkyl radical; a C₁-C₆ sulphonamidoalkyl radical; a (C₁-C₆)alkylcarboxy(C₁-C₆)alkyl radical; a (C₁-C₆)alkylsulphonyl(C₁-C₆)alkyl radical; a (C₁-C₆)alkylcarbonyl(C₁-C₆)alkyl radical; an N-(C₁-C₆)alkylcarbamyl(C₁-C₆)alkyl radical; an N-(C₁-C₆)alkylsulphonamido(C₁-C₆)alkyl radical;

x is 0 or 1

when x = 0, the linking arm D is attached to the nitrogen atom,

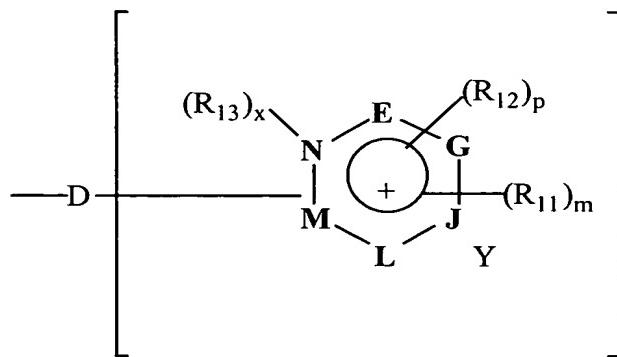
when x = 1, the linking arm D is attached to one of the vertices E, G, J or L,

Y is a counter-ion.

13. The composition of claim 12, in which the cationic tertiary para-phenylenediamine is such that the vertices E, G, J and L form an imidazole ring.

14. The composition of claim 12, in which the cationic tertiary para-phenylenediamine is such that x is equal to 0, D is a single bond or an alkylene chain which may be substituted.

15. The composition of claim 2, in which the cationic tertiary para-phenylenediamine is such that R₂ represents an onium radical Z corresponding to formula IV



(IV)

in which:

D is a single bond or a linear or branched C₁-C₁₄ alkylene chain which may be interrupted by one or more heteroatoms chosen from an oxygen, sulphur or nitrogen atom, and which may be substituted with one or more hydroxyl, C₁-C₆ alkoxy or amino radicals, and which may carry one or more ketone functional groups;

the vertices E, G, J, L and M, which are identical or different, represent a carbon, oxygen, sulphur or nitrogen atom to form a ring chosen from the pyridine, pyrimidine, pyrazine, triazine and pyridazine rings;

p is an integer between 0 and 3 inclusive;

m is an integer between 0 and 5 inclusive;

p+m is an integer between 0 and 5;

the radicals R₁₁, which are identical or different, represent a halogen atom, a hydroxyl radical, a C₁-C₆ alkyl radical, a C₁-C₆ monohydroxyalkyl radical, a C₂-C₆ polyhydroxyalkyl radical, a C₁-C₆ alkoxy radical, a tri(C₁-C₆)alkylsilane(C₁-C₆)alkyl radical, an amido radical, a carboxyl radical, a C₁-C₆ alkylcarbonyl radical, a thio radical, a C₁-C₆ thioalkyl radical, a (C₁-C₆)alkylthio radical, an amino radical, an amino radical which is

substituted with a (C₁-C₆)alkyl, (C₁-C₆)alkylcarbonyl, amido or (C₁-C₆)alkylsulphonyl radical; a C₁-C₆ monohydroxyalkyl radical or a C₂-C₆ polyhydroxyalkyl radical; it being understood that the radicals R₁₁ are carried by a carbon atom,

the radicals R₁₂, which are identical or different, represent a C₁-C₆ alkyl radical, a C₁-C₆ monohydroxyalkyl radical, a C₂-C₆ polyhydroxyalkyl radical, a tri(C₁-C₆)alkylsilane(C₁-C₆)alkyl radical, a (C₁-C₆)alkoxy(C₁-C₆)alkyl radical, a C₁-C₆ carbamylalkyl radical, a (C₁-C₆)alkylcarboxy(C₁-C₆)alkyl radical, a benzyl radical; it being understood that the radicals R₁₂ are carried by a nitrogen,

R₁₃ represents a C₁-C₆ alkyl radical; a C₁-C₆ monohydroxyalkyl radical; a C₂-C₆ polyhydroxyalkyl radical; an aryl radical; a benzyl radical; a C₁-C₆ aminoalkyl radical, a C₁-C₆ aminoalkyl radical whose amine is mono- or di-substituted with a (C₁-C₆)alkyl, (C₁-C₆)alkylcarbonyl, amido or (C₁-C₆)alkylsulphonyl radical; a C₁-C₆ carboxyalkyl radical; a C₁-C₆ carbamylalkyl radical; a C₁-C₆ trifluoroalkyl radical; a tri(C₁-C₆)alkylsilane(C₁-C₆)alkyl radical; a C₁-C₆ sulphonamidoalkyl radical; a (C₁-C₆)alkylcarboxy(C₁-C₆)alkyl radical; a (C₁-C₆)alkylsulphonyl(C₁-C₆)alkyl radical; a (C₁-C₆)alkylsulphonyl(C₁-C₆)alkyl radical; a (C₁-C₆)alkylcarbonyl(C₁-C₆)alkyl radical; an N-(C₁-C₆)alkylcarbamyl(C₁-C₆)alkyl radical; an N-(C₁-C₆)alkylsulphonamido(C₁-C₆)alkyl radical;

x is 0 or 1

when x = 0, the linking arm D is attached to the nitrogen atom,

when x = 1, the linking arm D is attached to one of the vertices E, G, J, L or M,

Y is a counter-ion.

16. The composition of claim 15, in which the vertices E, G, J, L and M form, with the nitrogen of the ring, a ring chosen from pyridine and pyrimidine rings.

17. The composition of claim 15, in which the cationic tertiary para-phenylenediamine is such that x is equal to 0 and R₁₁ is chosen from a hydroxyl radical, a C₁-C₆ alkyl radical, a C₁-C₆ monohydroxyalkyl radical, a C₂-C₆ polyhydroxyalkyl radical, a C₁-C₆ alkoxy

radical, a tri(C₁-C₆)alkylsilane(C₁-C₆)alkyl radical, an amido radical, a C₁-C₆ alkylcarbonyl radical, an amino radical, an amino radical which is mono- or di-substituted with a (C₁-C₆)alkyl, a (C₁-C₆)alkylcarbonyl, amido or (C₁-C₆)alkylsulphonyl radical; a C₁-C₆ monohydroxyalkyl radical or a C₂-C₆ polyhydroxyalkyl radical and R₁₂ is chosen from a C₁-C₆ alkyl radical, a C₁-C₆ monohydroxyalkyl radical, a C₂-C₆ polyhydroxyalkyl radical, a tri(C₁-C₆)alkylsilane(C₁-C₆)alkyl radical, a (C₁-C₆)alkoxy(C₁-C₆)alkyl radical, a C₁-C₆ carbamylalkyl radical.

18. The composition of claim 15, in which the cationic tertiary para-phenylenediamine is such that x is equal to 1 and R₁₃ is chosen from a C₁-C₆ alkyl radical; a C₁-C₆ monohydroxyalkyl radical; a C₂-C₆ polyhydroxyalkyl radical; a C₁-C₆ aminoalkyl radical, a C₁-C₆ aminoalkyl radical whose amine is mono- or di-substituted with a (C₁-C₆)alkyl radical, a (C₁-C₆)alkylcarbonyl radical, an amido radical, a (C₁-C₆)alkylsulphonyl radical; a C₁-C₆ carbamylalkyl radical; a tri(C₁-C₆)alkylsilane(C₁-C₆)alkyl radical; a (C₁-C₆)alkylcarbonyl(C₁-C₆)alkyl radical; an N-(C₁-C₆)alkylcarbamyl(C₁-C₆)alkyl radical; R₁₁ is chosen from a hydroxyl radical, a C₁-C₆ alkyl radical, a C₁-C₆ monohydroxyalkyl radical, a C₂-C₆ polyhydroxyalkyl radical, a C₁-C₆ alkoxy radical, a tri(C₁-C₆)alkylsilane(C₁-C₆)alkyl radical, an amido radical, a C₁-C₆ alkylcarbonyl radical, an amino radical, an amino radical which is mono- or di- substituted with a (C₁-C₆)alkyl, (C₁-C₆)alkylcarbonyl, amido or (C₁-C₆)alkylsulphonyl radical; and R₁₂ is chosen from a C₁-C₆ alkyl radical, a C₁-C₆ monohydroxyalkyl radical, a C₂-C₆ polyhydroxyalkyl radical, a tri(C₁-C₆)alkylsilane(C₁-C₆)alkyl radical, a (C₁-C₆)alkoxy(C₁-C₆)alkyl radical, a C₁-C₆ carbamylalkyl radical.

19. The composition of claim 15, in which the cationic tertiary para-phenylenediamine is such that R₁₁, R₁₂ and R₁₃ are alkyl radicals which may be substituted.

20. The composition of claim 2, in which the cationic tertiary para-phenylenediamine is such that the radical R₂ is the radical of formula -XP(O)(O-)OCH₂CH₂N⁺(CH₃)₃ where X represents an oxygen atom or a radical -NR₁₄, R₁₄ representing a hydrogen, a C₁-C₄ alkyl radical or a hydroxyalkyl radical.

21. The composition of claim 2, in which the cationic tertiary para-phenylenediamine is such that R₂ is a guanidine radical of formula -X-C=NR₈-NR₉R₁₀, X represents an

oxygen atom or a radical $-NR_{11}$, R_8 , R_9 , R_{10} and R_{11} representing a hydrogen, a C₁-C₄ alkyl radical or a hydroxyalkyl radical.

22. The composition of claim 1, in which the cationic tertiary para-phenylene is chosen from the group consisting of

[1-(4-Aminophenyl)pyrrolidin-3-yl]trimethylammonium chloride,

[1-(4-Aminophenyl)pyrrolidin-3-yl]dimethyltetradecylammonium bromide

N'-[1-(4-Aminophenyl)pyrrolidin-3-yl]-N,N-dimethyl- guanidinium chloride

N-[1-(4-Aminophenyl)pyrrolidin-3-yl] guanidinium chloride

3-[1-(4-Aminophenyl)pyrrolidin-3-yl]-1-methyl-3H-imidazol-1-ium chloride

[1-(4-Aminophenyl)pyrrolidin-3-yl]-(2-hydroxyethyl)dimethylammonium chloride

[1-(4-Aminophenyl)pyrrolidin-3-yl]dimethyl-(3-trimethylsilylpropyl)ammonium chloride

[1-(4-Aminophenyl)pyrrolidin-3-yl]-(trimethylammonium-
hexyl)dimethylammonium dichloride

[1-(4-Aminophenyl)pyrrolidin-3-yl]oxophosphorylcholine

{2-[1-(4-Aminophenyl)pyrrolidin-3-yloxy]ethyl} trimethylammonium chloride

1-{2-[1-(4-Aminophenyl)pyrrolidin-3-yloxy]ethyl}-1-methylpyrrolidinium chloride

3-{3-[1-(4-Aminophenyl)pyrrolidin-3-yloxy]propyl}-1-methyl-3H-imidazol-1-ium chloride

1-{2-[1-(4-Aminophenyl)pyrrolidin-3-yloxy]ethyl}-1-methylpiperidinium chloride

3-{3-[1-(5-trimethylsilylpropyl)-4-Amino-3-
trimethylsilylpropyl]pyrrolidin-3-yloxy]propyl}-1-methyl-3H-
imidazol-1-um chloride

[1-(4-Amino-3-methylphenyl)pyrrolidin-3-yl]trimethylammonium chloride

[1-(4-Amino-3-methylphenyl)pyrrolidin-3-yl]dimethyltetradecylammonium chloride

N'-[1-(4-Amino-3-methylphenyl)pyrrolidin-3-yl]-N,N-dimethyl guanidinium chloride

N-[1-(4-Amino-3-methylphenyl)pyrrolidin-3-yl] guanidinium chloride

3-[1-(4-Amino-3-methylphenyl)pyrrolidin-3-yl]-1-methyl-3H-imidazol-1-ium chloride

[1-(4-Amino-3-methylphenyl)pyrrolidin-3-yl]-2-hydroxyethyl)dimethylammonium chloride

[1-(4-Amino-3-methylphenyl)pyrrolidin-3-yl]dimethyl-(3-trimethylsilanylpropylammonium chloride

[1-(4-Amino-3-methylphenyl)pyrrolidin-3-yl]-(trimethylammoniumhexyl-dimethylammonium dichloride

[1-(4-Amino-3-methylphenyl)pyrrolidin-3-yl]oxophosphorylcholine

{2-[1-(4-Amino-3-methylphenyl)pyrrolidin-3-yloxy]ethyl}trimethylammonium chloride

1-{2-[1-(4-Amino-3-methylphenyl)pyrrolidin-3-yloxy]ethyl}-1-methylpyrrolidinium chloride

3-{3-[1-(4-Amino-3-methylphenyl)pyrrolidin-3-yloxy]-propyl} 1-methyl-3H-imidazol-1-um chloride

1-{2-[1-(4-Amino-3-methylphenyl)pyrrolidin-3-yloxy]ethyl}-1-methylpiperidinium chloride

[1-(4-Amino-3-trimethylsilanylethylphenyl)pyrrolidin-3-yl]trimethylammonium chloride

3-[1-(4-Amino-3-trimethylsilanylethylphenyl)pyrrolidin-3-yl]-1-methyl-3H-imidazol-1-ium chloride

3-{3-[1-(4-Amino-3-trimethylsilanylethylphenyl)pyrrolidin-3-yloxy]propyl}-1-methyl-3H-imidazol-1-um chloride

[1-(5-trimethylsilanylethyl-4-Amino-3-trimethylsilanylethylphenyl)pyrrolidin-3-yl]trimethylammonium chloride

3-[1-(5-trimethylsilanylethyl-4-Amino-3-trimethylsilanylethylphenyl)pyrrolidin-3-yl]-1-methyl-3H-imidazol-1-i um chloride

1'-(4-Aminophenyl)-1-methyl-[1,3']bipyrrolidinyl-1-i um chloride

1'-(4-Amino-3-methylphenyl)-1-methyl-[1,3']bipyrrolidinyl-1-i um chloride

3-{{[1-(4-Aminophenyl)pyrrolidin-3-ylcarbamoyl]methyl}-1-methyl-3H-imidazol-1-i um chloride}

3-{{[1-(4-Amino-3-methylphenyl)pyrrolidin-3-ylcarbamoyl]methyl}-1-methyl-3H-imidazol-1-i um chloride}

3-[1-(4-Aminophenyl)pyrrolidin-3-yl]-1-(3-trimethylsilylpropyl)-3H-imidazol-1-i um chloride

3-[1-(4-Aminophenyl)pyrrolidin-3-yl]-1-(3-trimethylsilylpropyl)-3H-imidazol-1-i um chloride

[1-(4-aminophenyl)pyrrolidin-3-yl]ethyldimethylammonium chloride

[1-(4-aminophenyl)pyrrolidin-3-yl]ethyldimethylammonium iodide

[1-(4-aminophenyl)pyrrolidin-3-yl]propyldimethylammonium iodide,

[1-(4-aminophenyl)pyrrolidin-3-yl]propyldimethylammonium bromide

[1-(4-aminophenyl)pyrrolidin-3-yl]propyldimethylammonium methosulphate

[1-(4-aminophenyl)pyrrolidin-3-yl]butyldimethylammonium iodide

[1-(4-aminophenyl)pyrrolidin-3-yl]pentyldimethylammonium iodide

[1-(4-aminophenyl)pyrrolidin-3-yl]hexyldimethylammonium iodide

[1-(4-aminophenyl)pyrrolidin-3-yl]heptyldimethylammonium iodide

[1-(4-aminophenyl)pyrrolidin-3-yl]octyldimethylammonium iodide

[1-(4-aminophenyl)pyrrolidin-3-yl]decyldimethylammonium iodide

[1-(4-aminophenyl)pyrrolidin-3-yl]hexadecyldimethylammonium iodide

[1-(4-aminophenyl)pyrrolidin-3-yl]hydroxyethyldimethylammonium chloride

[1-(4-aminophenyl)pyrrolidin-3-yl]hydroxyethyldimethylammonium iodide.

23. The composition of claim 1, in which the cationic tertiary para-phenylene is chosen from the group consisting of [1-(4-Aminophenyl)pyrrolidin-3-yl]trimethylammonium chloride;

[1-(4-Aminophenyl)pyrrolidin-3-yl]dimethyltetradecylammonium bromide;

N'-[1-(4-Aminophenyl)pyrrolidin-3-yl]-N,N-dimethyl guanidinium chloride

N-[1-(4-Aminophenyl)pyrrolidin-3-yl] guanidinium chloride

3-[1-(4-Aminophenyl)pyrrolidin-3-yl]-1-methyl-3H-imidazol-1-i um chloride;

[1-(4-Aminophenyl)pyrrolidin-3-yl](2-hydroxyethyl)dimethylammonium chloride

[1-(4-Aminophenyl)pyrrolidin-3-yl]dimethyl-(3-trimethylsilylpropyl)ammonium chloride;

[1-(4-Amino-3-methylphenyl)pyrrolidin-3-yl]trimethylammonium chloride

[1-(4-Amino-3-methylphenyl)pyrrolidin-3-yl]dimethyltetradecylammonium chloride

N'-[1-(4-Amino-3-methylphenyl)pyrrolidin-3-yl]-N,N-dimethyl guanidinium chloride

N-[1-(4-Amino-3-methylphenyl)pyrrolidin-3-yl] guanidinium chloride

3-[1-(4-Amino-3-methylphenyl)pyrrolidin-3-yl]-1-methyl-3H-imidazol-1-i um chloride

[1-(4-Amino-3-methylphenyl)pyrrolidin-3-yl]-(2-hydroxyethyl)dimethylammonium chloride

[1-(4-Amino-3-methylphenyl)pyrrolidin-3-yl]dimethyl-(3-trimethylsilylpropyl)ammonium chloride

1'-(4-Aminophenyl)-1-methyl-[1,3']bipyrrolidinyl-1-i um chloride

1'-(4-Amino-3-methylphenyl)-1-methyl-[1,3']bipyrrolidinyl-1-i um chloride

3-{{[1-(4-Aminophenyl)pyrrolidin-3-ylcarbamoyl]methyl}-1-methyl-3H-imidazol-1-i um chloride

3-{{[1-(4-Amino-3-methylphenyl)pyrrolidin-3-ylcarbamoyl]methyl}-1-methyl-3H-imidazol-1-i um chloride

3-[1-(4-Aminophenyl)pyrrolidin-3-yl]-1-(3-trimethylsilanylpropyl)-3H-imidazol-1-i um chloride

3-[1-(4-Amino-3-methylphenyl)pyrrolidin-3-yl]-1-(3-trimethylsilanyl-propyl)-3H-imidazol-1-i um chloride

[1-(4-aminophenyl)pyrrolidin-3-yl]ethyldimethylammonium chloride

[1-(4-aminophenyl)pyrrolidin-3-yl]ethyldimethylammonium iodide

[1-(4-Aminophenyl)pyrrolidin-3-yl]propyldimethylammonium iodide,

[1-(4-aminophenyl)pyrrolidin-3-yl]propyldimethylammonium bromide

[1-(4-aminophenyl)pyrrolidin-3-yl]propyldimethylammonium methosulphate

[1-(4-aminophenyl)pyrrolidin-3-yl]butyldimethylammonium iodide

[1-(4-aminophenyl)pyrrolidin-3-yl]pentyldimethylammonium iodide

[1-(4-aminophenyl)pyrrolidin-3-yl]hexyldimethylammonium iodide

[1-(4-aminophenyl)pyrrolidin-3-yl]heptyldimethylammonium iodide

[1-(4-aminophenyl)pyrrolidin-3-yl]octyldimethylammonium iodide

[1-(4-aminophenyl)pyrrolidin-3-yl]decyldimethylammonium iodide

[1-(4-aminophenyl)pyrrolidin-3-yl]hexadecyldimethylammonium iodide

[1-(4-aminophenyl)pyrrolidin-3-yl]hydroxyethyldimethylammonium chloride

[1-(4-aminophenyl)pyrrolidin-3-yl]hydroxyethyldimethylammonium iodide.

24. The composition of claim 1, in which the cationic tertiary para-phenylene is chosen from the group consisting of [1-(4-Aminophenyl)pyrrolidin-3-yl]trimethylammonium chloride

[1-(4-Aminophenyl)pyrrolidin-3-yl]dimethyltetradecylammonium bromide

N'-[1-(4-Aminophenyl)pyrrolidin-3-yl]-N,N-dimethyl guanidinium chloride

N-[1-(4-Aminophenyl)pyrrolidin-3-yl] guanidinium chloride

3-[1-(4-Aminophenyl)pyrrolidin-3-yl]-1-methyl-3H-imidazol-1-i um chloride

[1-(4-Aminophenyl)pyrrolidin-3-yl]-(2-hydroxyethyl)dimethylammonium chloride

[1-(4-Aminophenyl)pyrrolidin-3-yl]dimethyl-(3-trimethylsilanylpropyl)ammonium chloride

[1-(4-Aminophenyl)pyrrolidin-3-yl]-(trimethylammonium-hexyl)dimethylammonium dichloride

1'-(4-Aminophenyl)-1-methyl-[1,3']bipyrrolidinyl-1-i um chloride

3-[1-(4-Aminophenyl)pyrrolidin-3-yl]-1-(3-trimethylsilanylpropyl)-3H-imidazol-1-i um chloride

3-[1-(4-Amino-3-methylphenyl)pyrrolidin-3-yl]-1-(3-trimethylsilanylpropyl)-3H-imidazol-1-i um chloride

[1-(4-aminophenyl)pyrrolidin-3-yl]ethyldimethylammonium chloride

[1-(4-aminophenyl)pyrrolidin-3-yl]ethyldimethylammonium iodide

[1-(4-aminophenyl)pyrrolidin-3-yl]propyldimethylammonium iodide,

[1-(4-aminophenyl)pyrrolidin-3-yl]propyldimethylammonium bromide

[1-(4-aminophenyl)pyrrolidin-3-yl]propyldimethylammonium methosulphate

[1-(4-aminophenyl)pyrrolidin-3-yl]butyldimethylammonium iodide

[1-(4-aminophenyl)pyrrolidin-3-yl]pentyldimethylammonium iodide

[1-(4-aminophenyl)pyrrolidin-3-yl]hexyldimethylammonium iodide

[1-(4-aminophenyl)pyrrolidin-3-yl]heptyldimethylammonium iodide

[1-(4-aminophenyl)pyrrolidin-3-yl]octyldimethylammonium iodide

[1-(4-aminophenyl)pyrrolidin-3-yl]decyldimethylammonium iodide

[1-(4-aminophenyl)pyrrolidin-3-yl]hexadecyldimethylammonium iodide

[1-(4-aminophenyl)pyrrolidin-3-yl]hydroxyethyldimethylammonium chloride

[1-(4-aminophenyl)pyrrolidin-3-yl]hydroxyethyldimethylammonium iodide.

25. The composition of claim 1, in which the cationic tertiary para-phenylene is chosen from the group consisting of

[1-(4-Aminophenyl)pyrrolidin-3-yl]trimethylammonium chloride

3-[1-(4-Aminophenyl)pyrrolidin-3-yl]-1-methyl-3H-imidazol-1-i um chloride

[1-(4-Aminophenyl)pyrrolidin-3-yl]-(2-hydroxyethyl)dimethylammonium chloride

1'-(4-Aminophenyl)-1-methyl-[1,3']bipyrrolidinyl-1-i um chloride.

26. The composition of claim 1, in which the cationic tertiary para-phenylene is chosen from the group consisting of

[1-(4-Aminophenyl)pyrrolidin-3-yl]trimethylammonium chloride, and [1-(4-Aminophenyl)pyrrolidin-3-yl]-(2-hydroxyethyl)dimethylammonium chloride.

27. The composition of claim 1, such that the para-aminophenol is 2-chloro-para-aminophenol.

28. The composition of claim 1, such that the para-aminophenol is 4-amino-6-((5'-amino-2'-hydroxy-3'-methylphenyl)methyl)-2-methylphenol.

29. The composition of claim 1, such that the para-aminophenol is bis(5-amino-2-hydroxyphenyl)methane.

30. The composition claim 1, in which the para-aminophenol(s) represent from 0.005 to 10% by weight relative to the total weight of the composition.

31. The composition of claim 30, in which the para-aminophenol(s) represent from 0.01 to 5% by weight relative to the total weight of the composition.

32. The composition of claim 1, in which the cationic tertiary para-phenylenediamine(s) having a pyrrolidine ring represent from 0.001 to 10%, and preferably from 0.005 to 6% by weight relative to the total weight of the composition.

33. The composition of claim 1, such that it additionally comprises at least one coupler chosen from meta-phenylenediamines, meta-aminophenols, meta-diphenols, naphthalene couplers, heterocyclic couplers and their addition salts.

34. The composition of claim 33, such that the coupler is chosen from 1,3-dihydroxybenzene, 1,3-dihydroxy-2-methylbenzene, 4-chloro-1,3-dihydroxybenzene, 2,4-diamino-1-(β -hydroxyethoxy)benzene, 2-amino-4-(β -hydroxyethylamino)-1-methoxybenzene, 1,3-diaminobenzene, 1,3-bis(2,4-diaminophenoxy)propane, 3-ureidoaniline, 3-ureido-1-dimethylaminobenzene, sesamol, 1- β -hydroxyethylamino-3,4-

methyleneoxybenzene, α -naphthol, 2-methyl-1-naphthol, 6-hydroxyindole, 4-hydroxyindole, 4-hydroxy-N-methylindole, 2-amino-3-hydroxypyridine, 6-hydroxybenzomorpholine, 3,5-diamino-2,6-dimethoxypyridine, 1-N-(β -hydroxyethyl)amino-3,4-methylenedioxybenzene, 2,6-bis(β -hydroxyethylamino)toluene and their addition salts.

35. The composition of claim 33, such that the coupler(s) are present in a quantity of between 0.001 and 20%, preferably between 0.005 and 6% by weight relative to the total weight of the composition.

36. The composition of claim 1, such that it additionally comprises at least one cationic polymer.

37. The composition of claim 1, such that it additionally contains at least one thickening polymer.

38. The composition of claim 1, such that it additionally contains at least one surfactant chosen from the group consisting of anionic surfactants, amphoteric or zwitterionic surfactants, nonionic surfactants and cationic surfactants.

39. The composition of claim 1, such that it comprises at least one additional oxidation base chosen from para-phenylenediamines, bisphenylalkylenediamines, para-aminophenols other than the para-aminophenols of formula V, ortho-aminophenols, heterocyclic bases other than the heterocyclic para-phenylenediamines of formula I and their addition salts.

40. The composition of claim 39 in which the additional oxidation bases are present in a quantity of between 0.001 to 20% by weight and preferably between 0.005 and 6% by weight relative to the total weight of the composition.

41. The composition of claim 1, such that it additionally comprises at least one direct dye.

42. The composition of claim 1, such that it additionally comprises at least one hydroxylated solvent such as ethanol, propylene glycol, glycerol, polyol monoethers.

43. The composition of claim 1, such that it contains an oxidizing agent chosen from hydrogen peroxide, urea peroxide, alkali metal bromates, persalts, peracids and oxidase enzymes, and preferably hydrogen peroxide.

44. A method for the oxidation dyeing of keratinous fibres, in particular human keratinous fibres such as hair, characterized in that a dyeing composition as defined in claim 1 is applied to the fibres in the presence of an oxidizing agent.

45. A multicompartiment device in which the first compartment contains a dyeing composition for dyeing keratinous fibres, in particular human keratinous fibres such as hair, as defined in claim 1 and a second compartment contains an oxidizing agent.